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- (B) incubating the nucleic acid of said human in the presence of a nucleic acid primer and at least one dideoxynucleotide derivative, under conditions sufficient to permit a polymerase-mediated, template-dependent extension of said primer, said extension causing the incorporation of a single dideoxynucleotide derivative to the 3'-terminus of said primer, said incorporated single dideoxynucleotide derivative being complementary to the single nucleotide of the polymorphic site of said polymorphism;
- (C) determining the identity of said single nucleotide of said single nucleotide polymorphism by determining the identity of the dideoxynucleotide derivative incorporated into said primer, said identified dideoxynucleotide derivative being complementary to said single nucleotide of said polymorphism;
- (D) comparing the identity of said single nucleotide of said single nucleotide polymorphism with a corresponding single nucleotide polymorphism of a reference human, and determining whether said single nucleotide polymorphism contains the same single nucleotide at its respective polymorphic site in the reference human; and
- (E) using said comparison to determine whether said target human possesses said mutation linked to said genetic trait. --

## REMARKS

### **I. Status of the Application**

Claims 30-38 and 40-46 were pending, claims 30-33, 40-41 and 45-46 have been canceled, without prejudice or disclaimer, and new claims 47-50 has been added. Therefore, claims 34-38, 42-44 and 47-50 are pending.

As the Examiner will appreciate the chemical polyoxyethylenesorbitan-20 is commonly referred to by the trademark -- TWEEN-20 --. In the interests of furthering the prosecution of this application, Applicants have amended the specification to refer to the trademark Tween-20 by its chemical name - polyoxyethylenesorbitan-20 -.

Support for new claims 47 and 49 may be found in claims 30 and 31, and at other sites of the specification. Support for the "150 base" recitation of claims 48 and 49 may be found at page 14, lines 13-17. Support for the amendments to claims 33-34 may be found throughout the specification.

**A. Amendments To The Specification**

Applicants note that the specification incorporates by reference subject matter in PCT Application WO92/15712 on page 15, line 17 and page 33, lines 25-28 of the specification. Accordingly, Applicants have amended the specification by inserting the relevant sections of PCT Application WO92/15712 into the specification of the presently pending application and eliminated the incorporation by reference in the present application (see MPEP § 608.01(p)). The amendatory material consists of the same material incorporated by reference in the referencing application (see Declaration by Kevin W. McCabe).

**B. Amendments To The Claims**

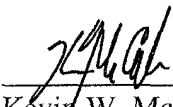
Applicants have amended claim 30 to clarify that the present invention is drawn to a method for analyzing DNA for the presence of a polymorphic site. Support for the recitation "analyzing DNA for the presence of a polymorphic site" may be found, for example, on page 42, lines 19-21. Likewise, support for the recitation "analyzing DNA of a target human" of claim 31 may be found, for example, on page 42, lines 19-21.

Applicants have amended claims 42 and 45 to clarify that the present invention is drawn to a *human* single nucleotide polymorphism. The recitation "equine polymorphism" is a typographical error. Support for the recitation "human single nucleotide polymorphism" may be found, for example, on page 58, lines 6-7.

Applicants respectfully submit that no new matter has been introduced by any of the present amendments.

Respectfully submitted,

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